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Secretary.

CATALOGUE OF THE

Cincinnati Corrugating Co.

CINCINNATI, OHIO,

U. S. A.

Superior Corrugated and Standing Seam Crimped Sheet Metal.

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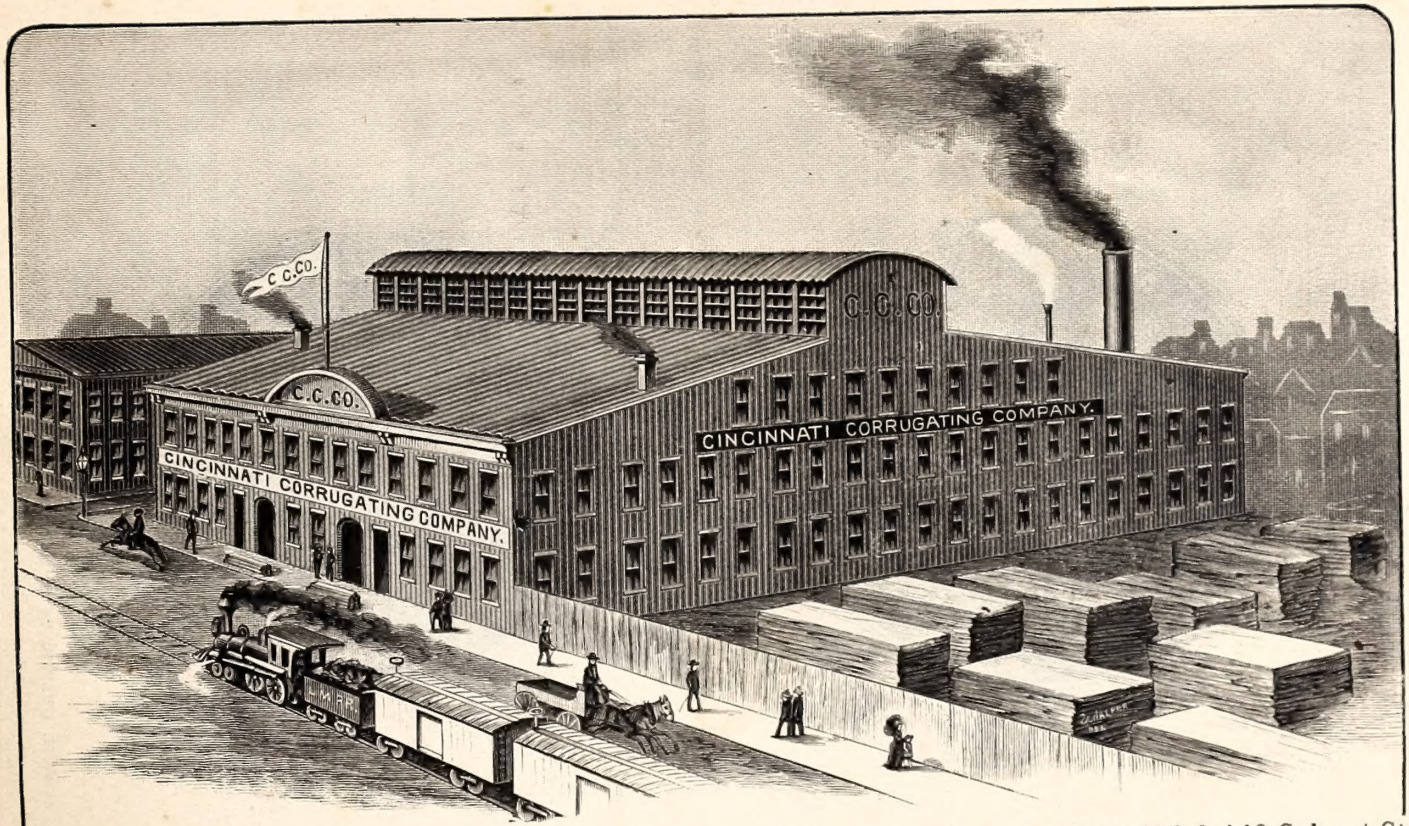

Our Factory, Length 200 Ft., Width 75 Ft. 167, 169 & 171 Eggleston Ave., and 136, 138 & 140 Culvert St.

Again awarded us in 1884, with, also, Medal for Metallic Lath.

GOLD MEDAL OF THE FIRST-CLASS AWARDED IN 1885 BY THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION AT NEW ORLEANS

TO

THE CINCINNATI CORRUGATING CO.

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CORRUGATED IRON

Has been in use longer than any other form of sheet iron for Roofing, Siding, Ceiling, etc.

WHEREVER MERIT, rather than mere first cost, is considered, it has been the preferred form of metallic covering for fifty years or more.

HENCE, the U. S. Government Buildings, Public Buildings generally, Railroad Companies, and the more permanent class of builders have used Corrugated Iron for Roofing, Siding, Ceilings, Shutters, Doors, etc., for many years.

ITS SUPERIOR architectural appearance, as well as its durability and effectiveness, induce this result.

CORRUGATED IRON is the strongest known form of sheet iron, and imparts material strength to the structure to which it is attached, by its lineal rigidity.

WE KNOW of Corrugated Iron roofs put on twenty-five years ago, which are now thoroughly effective.

TO BUILD up our business to its present considerable proportions, we have been compelled to raise the standard of its manufacture to the highest perfection in quality, of both material and workmanship.

WE USE only re-worked, box annealed iron; and our iron is all resheared before forming, which is done by pressure in dies, instead of by rolling.

THIS GIVES our iron its superior exactness—so essential for tight Roofing and Siding, for economy in applying, and for uniform excellence.

OUR AIM now is to popularize Corrugated Iron on its merits, by selling it for general use to meet prices of manufacturers of even inferior metallic covering materials.

WE OFFER the best at the price of the cheapest.

CORRUGATED IRON will not rattle from expansion and contraction, or wind; nor sag and buckle and present ugly and corrosive patches, where dust and water settle, as do other metallic materials.

IT IS ONLY necessary to SUGGEST the advantage of using this material for protection against fire.

INSURANCE COMPANIES demonstrate its value by their ratings.

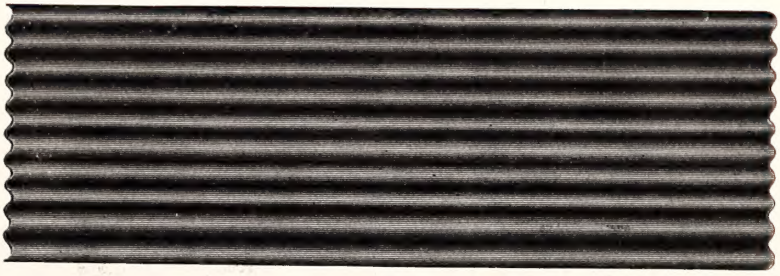
NOS. 26 and 24 iron are more generally used than any other gauges for Roofing, and perhaps, for Siding; altho' we keep and sell, largely, all gauges, of standard thickness.

WE make estimates, when desired, on spaces to be covered.

IN such cases, must have DETAILED dimensions: see pages, 13, 14, 15, and 16.

WE have 6, 7, 8, 9, and 10 ft. Corrugated sheets in stock, and can cover spaces promptly, with least waste and cutting—our stock never being less than 500 tons of Iron.

Fig. 1



SHOWS our Straight Corrugated Sheet; 10 corrugations $2\frac{1}{2}$ inches wide by $\frac{3}{8}$ to $\frac{3}{4}$ inch deep.

Regular lengths in stock, 6, 7, 8, 9, and 10 feet.

THE WIDTH differs according to the gauge, or thickness, as below stated:

No. 18,	Full Width,	$24\frac{1}{2}$ in.		Covering Width,	$22\frac{3}{4}$ in.
" 20,	"	$24\frac{1}{2}$ "		" "	$22\frac{3}{4}$ "
" 22,	"	$24\frac{1}{2}$ "		" "	23 "
" 24,	"	$24\frac{3}{4}$ "		" "	23 "
" 26,	"	25 "		" "	$23\frac{1}{2}$ "
" 27,	"	25 "		" "	$23\frac{1}{2}$ "

When this iron is attached directly to studding or rafters which run in the same direction the sheets do, the distance between the centers of the studding or rafters must conform to that of the "covering width" given for the gauge of iron used, per above table.

We furnish per square of $2\frac{1}{2}$ in. x $\frac{3}{4}$ in. Corrugated iron

$\frac{8}{6}$	$\frac{6\frac{6}{7}}{7}$	$\frac{6}{8}$	$\frac{5\frac{1}{3}}{9}$	$\frac{4\frac{4}{5}}{10}$	sheets. ft. long.

It is the custom of the trade generally, as it is ours, in selling by the square, to furnish a number of sheets the total superficial measurement of which equals 100. sq ft. That is, without allowance for laps.

This is especially proper in CORRUGATED IRON which is used for so great a variety of purposes varying so much in requisite amount lapped.

See practical uses of Corrugated Iron, Page 13.

FOR EXAMPLE.

When each sheet is lapped one corrugation at one side and 4 inches at one end it requires to roof any space about 10 per cent. more squares of iron than the superficial measurement of the roof would indicate.

Where siding is no higher than the length of one sheet, add about 6 per cent. more squares of iron than the space will measure; when there are 2 or more rows, add about 8 per cent.

Fig. 2

SHOWS our Cone Head Steel Wire Nail for CORRUGATED IRON.

Fig. 3.

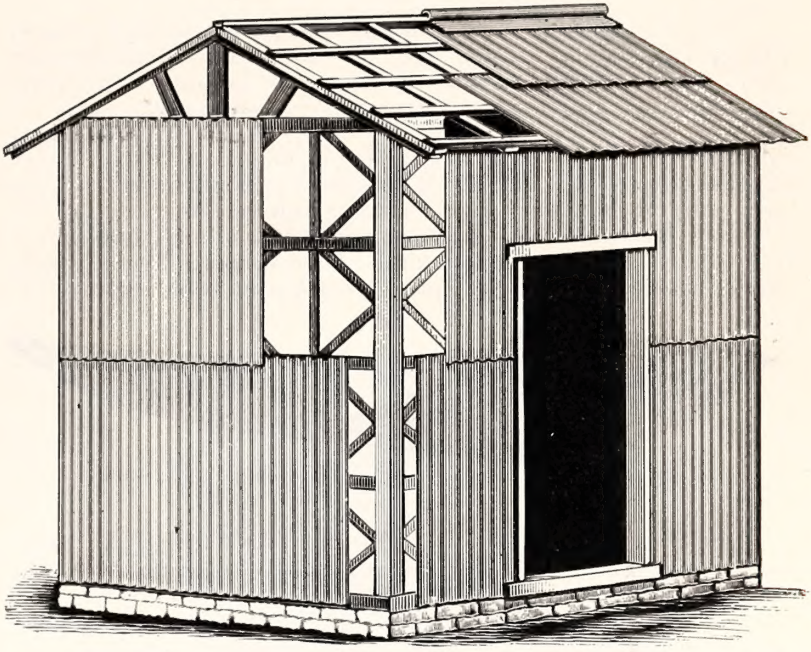
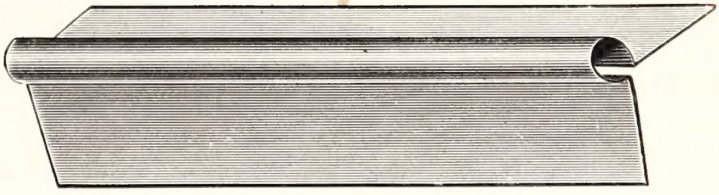


FIG. 3 above shows a Ridge Roofed Frame structure of simplest form in process of being covered with Corrugated Iron, and also shows application of the Iron Ridge Cap, more fully shown just below.

Fig. 4.



This is requisite for water and wind tight joints on Ridges and Hips of Roofs, as well as for a finished appearance, as in Fig. 16.

Fig. 5

SHOWS our Joint of corrugated wood, for going between Fig. 4 and the Corrugated Roofing, on each side of Ridge of the Roof.

THIS JOINT is flat on one side, going next to the Cap, and corrugated on the other side to fit the corrugations of the Roofing.

THIS JOINT is just the thing to use where Corrugated Roofing abuts against a wall where flashing is to be used; the flashing to be nailed over the joint and to the wall.

Fig. 6

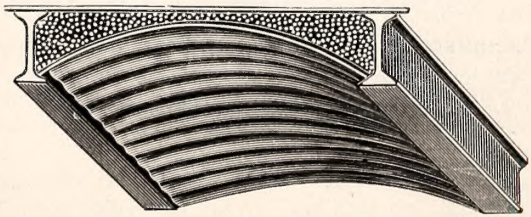
SHOWS a Corrugated Sheet Curved. These can be curved to any desired radius, within bending capacity of the material.

IN ORDERING refer to figure 23.

WE MAKE these to specifications required, of Steel or Iron, and give especial attention to exactness in this kind of work, having a large patronage from the leading Architectural Iron Works, Bridge Works, Builders, etc.

THESE SHEETS are in very general use, beside for purposes indicated, as they present a handsomely finished appearance, and often save expense in construction, e. g. for Lantern or Ventilator Roofs, Dormer Windows, Window Caps, etc.

Fig. 7



SHOWS a Section of a Corrugated Iron, or Steel, Arch, for Fire

Proof Buildings, etc., in which our Corrugated Curved Sheets are used.

THE SHEETS rest on lower flanges of the Beams, the space above being filled with concrete, to or above the top of beams, as desired.

THESE ARCHES, for strength, lightness, durability, and fire-proof qualities, can not be excelled. Corrugated Arches have often been tested (Trautwine), and have never shown any deflection at a pressure of 1,000 lbs. per square foot, and very little deflection at 2,000 or 3,000 lbs. per square foot.

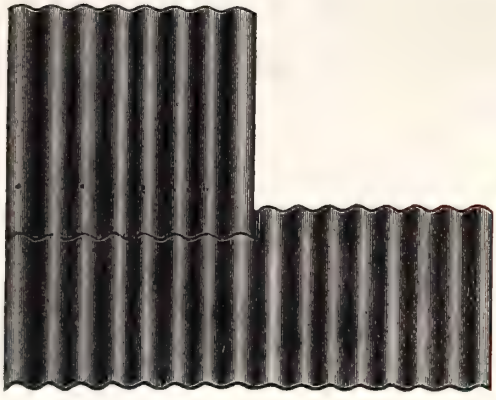
THE WEIGHT of the arches with concrete filling on top of beam is but little over half that of a brick arch, and concrete filling to same height, thus allowing fewer or lighter beams to be used and lessening the load on the walls.

THESE FLOORS are from 25 to 40 per cent. cheaper than those built of brick arches, or in fact any other fire-proof floor.

CURVED CEILINGS, when painted suitably, present a very beautiful finish.

THE USES of Curved Sheets for Roofing, Ceiling and other purposes are infinite, and many will suggest themselves to the reader besides those here named.

Fig. 8



SHOWS our cross Corrugated Sheets for Elevators, etc.

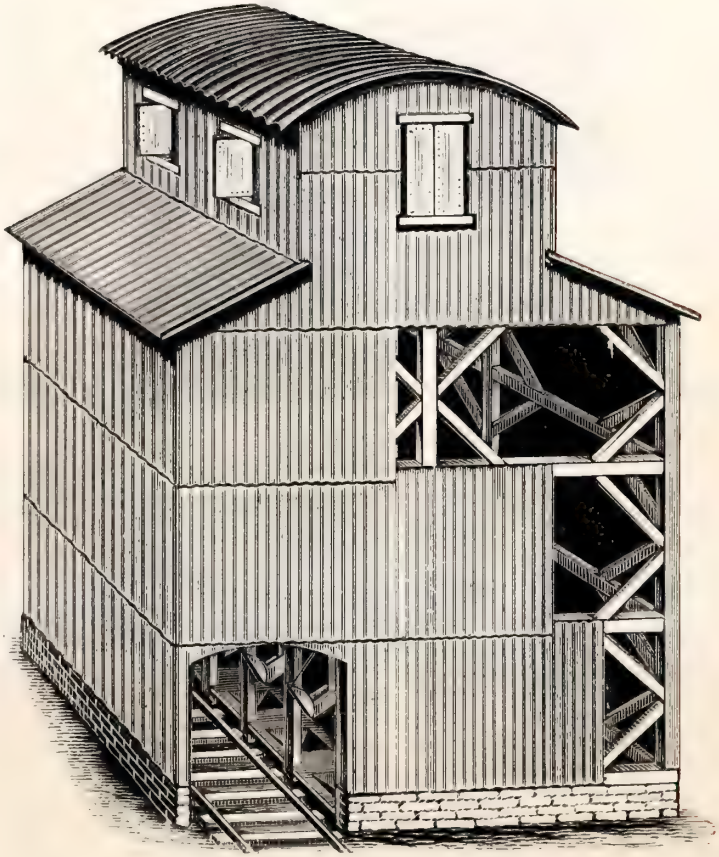
THE CORRUGATIONS are made cross-wise of the sheet, so that when applied they will run up and down the building, giving more elasticity to the iron, and preventing its buckling, as other Iron Siding does when the building settles.

THE SHEETS being laid with one inch lap and the nails being one inch above the upper edge of lower sheet, the sheets are enabled to slide one inch in twenty-four inches, as the sides of the elevator settle.

IN AN elevator, as all know, the strain is on the outer wall, when it fully settles down.

EACH SHEET is nailed two inches above the edge, and there isa n inch lap allowing the sheet to slide an inch before the nails, by which it is attached, impinge on the lower sheet; each sheet, in fact, acts independently.

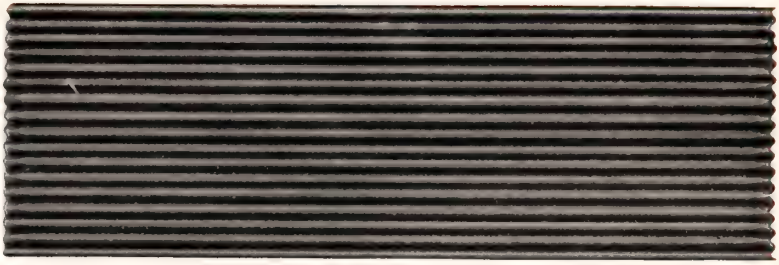
Fig. 9



SHOWS application of Curved and Straight Corrugated Iron to an Elevator, Mill or Railroad Depot.

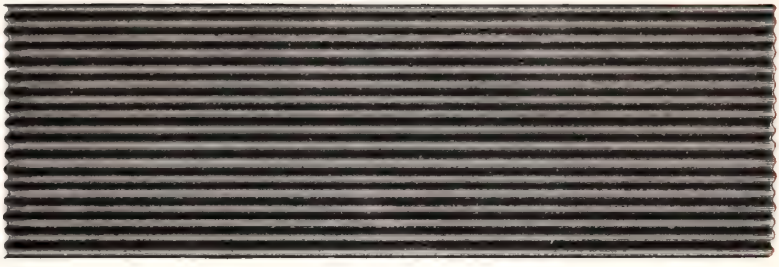
THIS MAKES a substantial, durable, fire-proof covering of the finest architectural appearance, with which no flat covering can at all compare.

Fig. 10



$1\frac{1}{4}$x$\frac{3}{8}$ Corrugation,

Fig. 11



$2\frac{1}{2}$x$\frac{3}{4}$ Corrugation,

SHOW relative sizes of two sizes of CORRUGATED IRON.

Fig. 12

19 Corrugations $1\frac{1}{4}$ in. wide,

and

Fig. 13

SHOW end views of $1\frac{1}{4}$x$\frac{3}{8}$ and $2\frac{1}{2}$x$\frac{3}{4}$ Corrugated Sheets respectively.

THE $1\frac{1}{4}$x$\frac{3}{8}$ Corrugation is used principally for No. 27 & 26 Iron, although we make Nos. 24, and 22, also.

WITH this Corrugation, $1\frac{1}{2}$x$\frac{3}{8}$, our Sheets,

No. 22,	are full width,	$23\frac{1}{2}$ in.		Covering width,	$22\frac{3}{4}$ in.
" 24,	"	24 "		"	" 23 "
" 26,	"	24 "		"	" 23 "
" 27,	"	$24\frac{1}{4}$ "		"	" $23\frac{1}{4}$ "

THIS Corrugation is especially admired for Ceilings, Linings, also for Iron Shutters, combining an artistic finish with thorough fire-proof qualities.

WHERE used for interiors, this Iron is often repainted when in place to suit the taste of users.

THIS Iron is easily applied by any ordinary mechanic, without special tools or instructions.

OF $1\frac{1}{4}$ in. x $\frac{3}{8}$ in. CORRUGATED IRON we furnish per square,

$8\frac{1}{3}$	$7\frac{1}{7}$	$6\frac{1}{4}$	$5\frac{5}{6}$	5	sheets.
6	7	8	9	10	ft. long.

THE same remark, as to distance between centers apply here as on page 4, difference in width being noted.

WE make, also, a very small corrugation, 3-16 in. wide, and of very slight depth; sheets all 28 in. wide by 6, 7, 8, 9, or 10 feet long.

THIS is the thing for fire-proofing Wooden Shutters, Sliding Doors, for Inside Wooden Frame Work, Timbers, etc., etc.

THIS is especially suitable as a substitute for flat iron, as it is stiffer and free from the "buckled" appearance of flat sheets when nailed in place.

THIS Corrugation is so small that it can be bent across without breaking, and indeed used almost anywhere flat iron can.

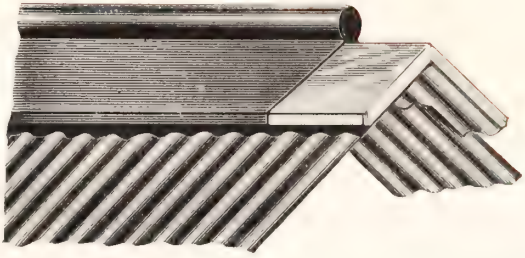
Fig. 14

SHOWS our Angle Ridge Cap; this is less expensive but equally as effective as that shown in Fig. 4

Fig. 15

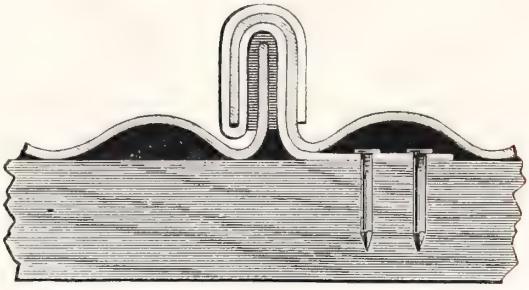
SHOWS our double curved sheets for Awnings, Roofs, etc.

Fig. 16



SHOWS clearly the practical application of Wooden Ridge Joint and Iron Ridge Cap to the Corrugated Iron Roofing, demonstrating the usefulness of the combination better than anything but a storm could.

Fig. 17



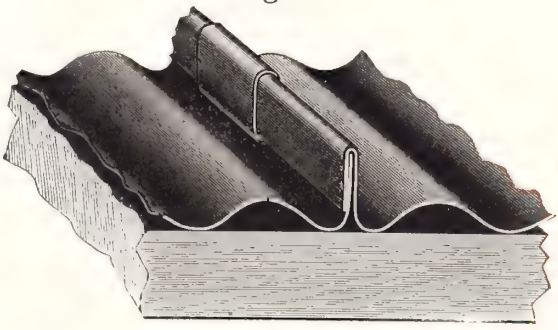
SHOWS section of our Patent Standing Seam Corrugated Iron Roofing.

THIS is not made longer than 8 feet.

THIS CUT clearly shows the Standing Seam at side edges of two sheets of CORRUGATED IRON, and the manner of nailing the Cleats to the Sheathing or Purlins.

ON IRON Purlins rivets would take place of nails, requiring longer Cleats, of course.

Fig. 18



SHOWS perspective view of Corrugated Iron Roofing with our Patent Standing Seam Joint.

AFTER MANY years of experience and experiment with other forms, we have adopted the above as the best means of making a positively tight Joint, within a reasonable added cost, for CORRUGATED IRON.

THIS FASTENING avoids the exposure of nail holes, and allows fully for expansion and contraction, thus complying with every requirement for an effective and economical Roof, of appearance consistent with the highest rules of constructive art.

Fig. 19

SHOWS a country store, constructed in Kentucky, of our CORRUGATED IRON.

WE HAVE many similar examples in different parts of the country.

THIS VIEW answers very well to indicate the appearance of such buildings, and must be admitted to be far superior to one of other materials of equal cost, while it is equal to any in effectiveness, and far superior in economy and safety from fire.

PRACTICAL USES OF CORRUGATED IRON.

FOR ROOFING.

It is laid on the same plan as shingles; commencing at the eaves, allowing, for quarter pitch, usually, one corrugation for lap at side, and four inches of one end of each sheet, with extension over eaves of six inches.

We recommend a coating of thick metallic paint paste, or cement, to be used between joints to make them tight.

Nails to be about eight inches apart; or $1\frac{1}{4}$ lbs. of 2 in. No. 9. Nails to the square of iron.

We recommend our Cone Head Wire Nails without Barbs.

For Ridge Roof, nail Ridge Joint on each side of Ridge, and then nail the Ridge Cap on Ridge Joint, see Fig. No. 16.

Where the heavier gauges of Iron are used, Nos. 20, 22, or even 24, sheathing boards may be dispensed with, *so far as providing support for the Iron is concerned.*

Where pitch of roof is very great, for example 6 inches to the foot, less lap than 4 inches will do at the ends.

Where the pitch is slight, say $1\frac{1}{2}$ inches to the foot, which is the least we recommend in any case for corrugated iron, it is sometimes necessary to lap 5 to 6 inches at the ends of sheets and one and a half or two corrugations at sides of sheets.

In laying corrugated iron with one and one half side corrugations lap, lay the first sheet in the usual way—with the outside edges turned down—the second sheet at the side of the first with edges turned up, and continue alternating in this manner, and lapping as you proceed, $1\frac{1}{2}$ corrugations.

The Rafters can be placed 4 to 6 feet apart, with purlins run through from 2 to 4 feet apart (see Fig. No. 3), 2 feet is preferable where No. 24 Iron is used.

With the lighter numbers, Nos. 26 and 27, sheathing is generally used, but does not require to fit close.

For flashing, see remark under Figs. 5 and 28.

Flash over "Cant Strip," at upper side of Sky Lights.

Nail near tops of corrugations but far enough down towards edges to bind the side laps; nail end laps at tops of every other corrugation.

FOR SIDING.

COMMENCE at bottom, running first row across side, lapping one corrugation at side.

PUT the second row on in the same manner lapping 2 inches of ends of sheets down over the top of first row.

WHERE USED without sheathing boards, the studding should be framed to measure from center to center, to correspond with covering width of sheet (see pages 4 to 10, or, if preferred, put the studding 6 to 8 feet apart, and nail the sheet to the purlins, placing purlins 2 to 4 feet apart.

Nail siding near base of corrugations.

WHEN STUDDING is used, 2x4 in. will answer, usually.

USING HEAVY Iron and dispensing with sheathing boards lessens danger from fire, thereby reducing Insurance; in some cases it may be necessary to rivet side laps.

IRREGULARITY in the studding may be neutralized by occasionally reversing a sheet and lapping sides accordingly, $\frac{1}{2}$ or $1\frac{1}{2}$ corrugations.

WHEN THE liability of damage from outside contact is considerable, heavier gauge should be used than otherwise necessary.

Do not let the siding have contact with the ground.

OUR CORRUGATED IRON can be used frequently as a substitute for cornice work in a very effective manner by giving the subject consideration.

FOR IRON FRAMES.

THE SIDE LAPS should be riveted every 12 inches, and end laps in every other corrugation.

TO FASTEN the sheets to iron beams and purlins, a cleat of hoop iron $\frac{3}{4}$ or $\frac{7}{8}$ inch wide should be passed around the purlins or beams and riveted at both ends to the sheet; by contracting or pressing this cleat toward web of beams or purlins a tight and secure fastening is made which allows for contraction and expansion of the sheet.

FOR STRAIGHT CEILINGS.

OUR $1\frac{1}{4} \times \frac{3}{8}$ CORRUGATED IRON is used chiefly.

NAIL TO joists, purlins, or otherwise, as preferred.

EITHER LAP ends of sheets, or preferably, butt them up to one another, and use moulding, corrugated on one side, to cover joints.

OR USE our Corrugated Iron Strip, fitted and punched to suit.

WE can furnish iron moulding to go between the sheets and around ceiling.

WHERE FOUND necessary, putty joints requiring it.

PUT MOULDING around sides of ceiling, and repaint the Iron of color to suit your taste.

THIS iron can be attached to old ceilings without removing plaster.

ORIGINAL designs will be estimated on.

SEE our special circular on ceilings.

FOR STANDING SEAM ROOFING SEE PAGE 11.

ENDS of sheets for this style are to be lapped only.

THE RIDGE is finished in the same way as for ordinary corrugated Roofing, except that the Ridge Joint, if used, must be sawed off to lengths to fit between the Standing Seams.

GENERAL REMARKS.

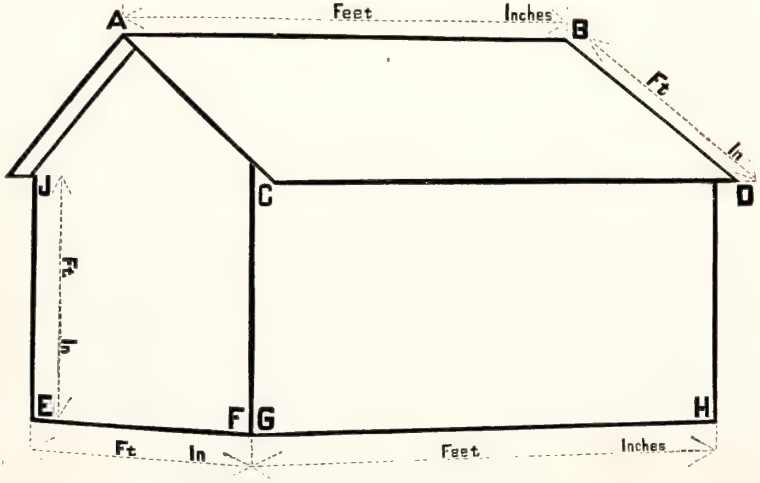
IF you want us to cut to fit around openings, latter must be exactly located by figures showing distance from said openings in two different directions, at least, as well as the size of the openings.

REMEMBER that we cut Iron to fit *up to* the openings indicated, hence your dimensions must include frames, unless you want them covered.

HOW TO ORDER ROOFING AND SIDING.

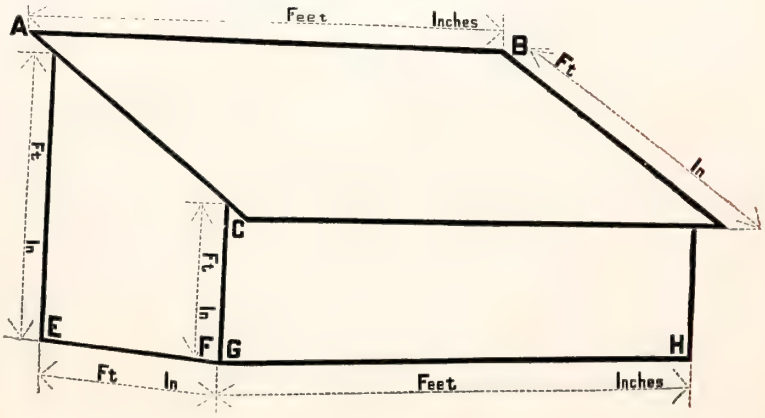
FOR Ridge Roof Building, furnish us dimensions indicated per

Fig. 20.



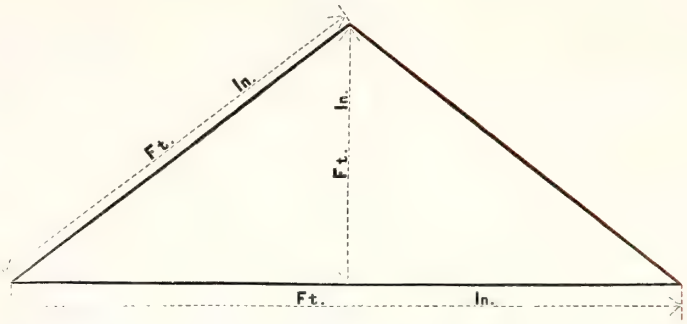
For Shed Roof Building, furnish us dimensions indicated per

Fig. 21.



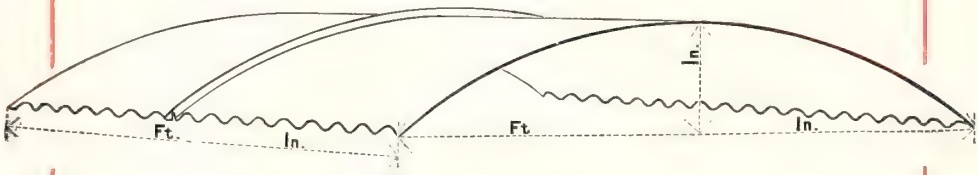
Allowing in above cases for necessary projection at Eaves, Ends, etc.
For Gables, furnish us dimensions indicated per

Fig. 22.



For Curved Sheets, always state whether for Roofing or Ceilings, and furnish us dimensions indicated by

Fig. 23.



Allow for projections, if for Roofing.

If for Ceilings, make base line from $\frac{1}{4}$ in. to $\frac{3}{8}$ in. less than distance between webs of I Beams, etc.; when shoes are used state thickness of iron used in same and give sketch of section of shoe, and, if so, width of same.

For Straight Corrugated Ceilings, send exact dimensions of Ceilings; state in which direction you prefer corrugation to run—if to be applied to sheathing or over plastered ceilings. If to be applied to joists, directly, the Iron must run across the joists; in which case, mention thickness and distance between centers of joists.

Unavoidable Waste, in cutting special orders from stock, is invariably charged at full price, and cost of cutting added.

If ordered about three weeks in advance, we can often have special sizes rolled as required without extra charge, saving much waste.

Please note that we *must* have detailed *figures*, showing dimensions on all drawings and sketches of surfaces to be covered, and especially when any cutting is desired.

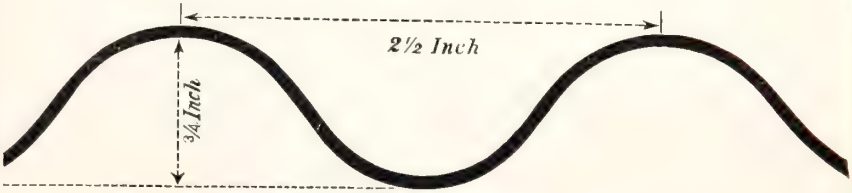
We can not attempt to execute a drawing or sketch, merely made to scale without figures, as even the slight difference, almost unavoidable, between two persons measuring the most accurate drawing, will produce misfit in cutting special orders.

We rarely find drawings accurately drawn to scale.

Fig. 24

Shows Fac-simile of $1\frac{1}{4} \times \frac{3}{8}$ in. Corrugation.

Fig. 25



Shows Fac-simile of $2\frac{1}{2} \times \frac{3}{4}$ in. Corrugation.

We furnish Corrugated Iron Black, Painted, Calamined and Galvanized.

We rarely have calls for Black, or unpainted Iron, however, as it has become generally recognized that for Paint to be most thoroughly effective no moisture must be allowed to come in contact with the Iron before painting.

In shipping before painting, the Iron incurs chances of becoming wet, and thereby rusted.

In painting we use the best Metallic Paint, composed of 72 per cent. of pure Iron, mixed with linseed oil.

We paint all sheets two coats, thoroughly rubbed on.

This paint will not fade, crack, or scale off; is waterproof, and proof against fire sparks, has a nice finish, and a handsome color.

Galvanized and Calamined Iron are universally recognized as the most durable.

Our Coating is done with the greatest care, and is superior in every respect.

We quote the lowest price current on Galvanized and Calamined Corrugated Iron.

Fig. 26.

WE recommend Calamined Iron as the coating is less liable to crack in corrugating.

CALAMINED Corrugated Iron makes the handsomest appearing roof known, and is acid proof and resists the effects of sulphurous smoke, etc.

WE OMIT to encumber this issue with references, as our list is too numerous and general, but enclose one herewith.

WE HAVE patrons in every State and Territory, and from Maine to Mexico, and will consider it a favor if anyone contemplating buying will look over our list of customers, and he can almost invariably find name of some one in his vicinity to whom he can refer.

ALL GOODS delivered in suitable shipping condition on cars or boat without extra charge therefor.

LET US have complete specifications of what you want, and, as costs vary from time to time, we will make you special quotations at lowest rates current.

REMEMBER, that double-worked box annealed Iron must be the most durable, as it will not scale off, carrying the paint with it, as does the common Iron used by irresponsible makers.

Fig. 26

SHOWS our Corrugated Perforated Metallic Lath for Fire-Proof Buildings.

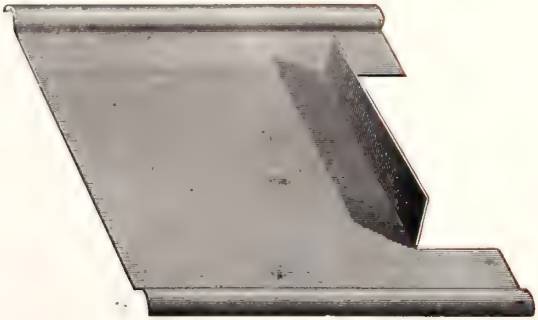
THIS LATH is far superior to any other form of Metallic Lathing, and can be adapted to any variety of Furring. It possesses the rigidity which Wire Lath lacks, and has ample openings for plaster.

THIS Lath is being used extensively in Government Buildings.

WE can furnish any desired length, not exceeding 10 feet. Those in stock are 98 inches long.

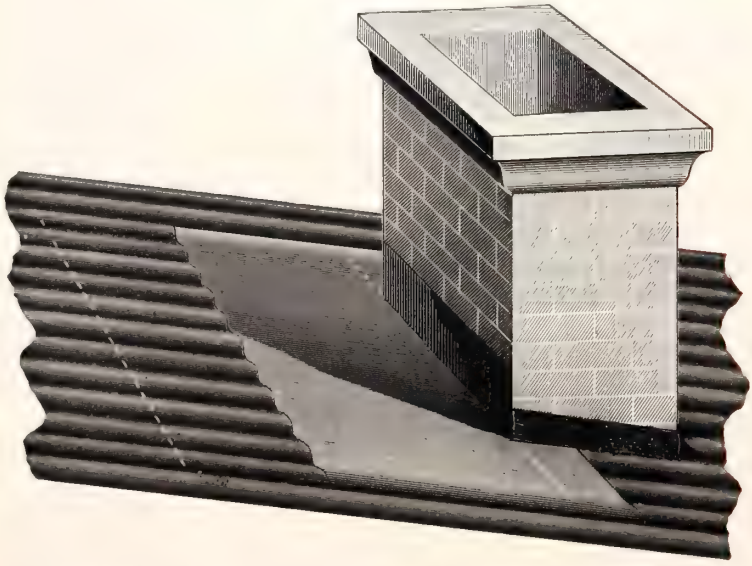
No. 27 Iron is used generally for Lath, with $1\frac{1}{8} \times \frac{3}{8}$ in. corrugations—width of 3 corrugation Lath $3\frac{7}{8}$ inches.

Fig. 27



SHOWS a Flashing for Chimneys, etc., to be made from a piece of flat sheet iron.

Fig. 28.



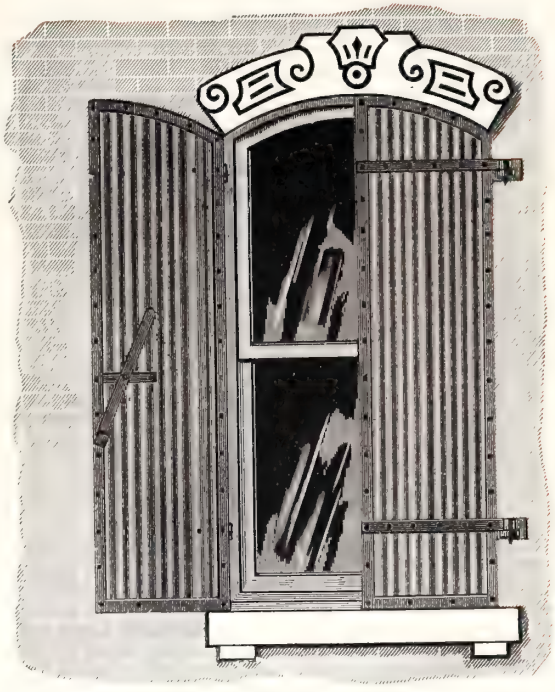
THIS Flashing should run up several inches under the corrugated iron which should stop off from the upper side of chimney far enough to allow rain to escape freely.

THE corrugations shown in Fig. 27 are to be formed over a corrugation of the roofing.

THE CORRUGATED IRON is to be flashed up at the sides of chimney as shown in Fig. 28.

USE cement freely. Counter Flashing may be used if desired.

Fig. 29



SHOWS A CORRUGATED IRON SHUTTER: we make different styles as specified, requiring exact figures for size wanted.

SEE our Special Circular on Shutters.

COPY OF THE ORIGINAL.

OFFICE OF THE FIRE MARSHAL.

CINCINNATI, FEBRUARY 28TH, 1884.

THE CINCINNATI CORRUGATING CO.,
Cincinnati, Ohio.

GENTLEMEN:—

In reply to your inquiry of this date I consider that Corrugated Sheet Iron has no superior for the prevention of spreading of a conflagration.

My experience fully sustains the justice of the Fire Laws of Cincinnati and the usage of the Insurance Companies doing business in our city, viz: in ranking sheet iron with brick and stone for practical efficiency against fire.

Yours very truly,
(SIGNED) JOSEPH BUNKER,
Fire Marshal.

OUR
CORRUGATED SHEET IRON

Has the following qualities, essential to all Covering Material:

It is Fire, Water and Wind Proof. It is Lightning Proof.
It is Cheap, Light and Durable.
It allows for the use of a light frame, being a support in itself.
A Building covered with it makes a handsome appearance.

WITH OUR improved machinery we make a perfect sheet of CORRUGATED IRON, guaranteed uniformly straight, flat, free from holes, warps, and all imperfections.

SUCH A CORRUGATED SHEET AS WE MAKE CAN NOT BE MADE IN THE ORDINARY WAY.

EACH SHEET is sheared on ends and sides, making it perfectly square; every corrugation is perfect, having a uniform depth entire length of sheet.

SIDE CORRUGATIONS are finished to make a tight, neat joint, barely perceptible.

EVERY CORRUGATION is a channel in itself, carrying off its share of the water quickly—not allowing it to remain and rust the roof or flood the joints.

IT PROVIDES for contraction and expansion without warping or displacing the sheet.

THERE IS NO solder to crack off with the heat as on tin.

IT IS THE cheapest covering considering its lasting qualities.

IT NEVER wears out if kept properly painted.

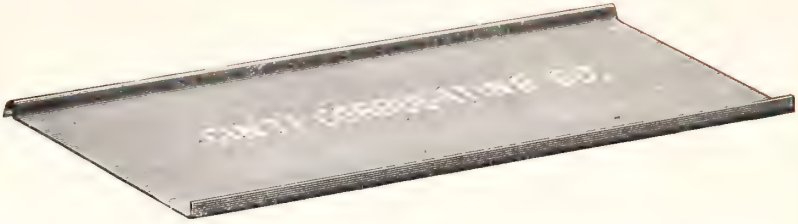
IT IS EASIER to put on than any other metal covering; any one who can drive a nail can attach it.

IT CAN BE readily taken off and moved from one building to another.

LIGHTNING.

Few persons realize the protection afforded during a violent thunder storm by being in a building covered with iron. Prof. Mitchell, and other scientific men say that it is impossible for a building to be struck by lightning when covered with iron. You thereby save the expense of lightning rods.

Fig. 30.

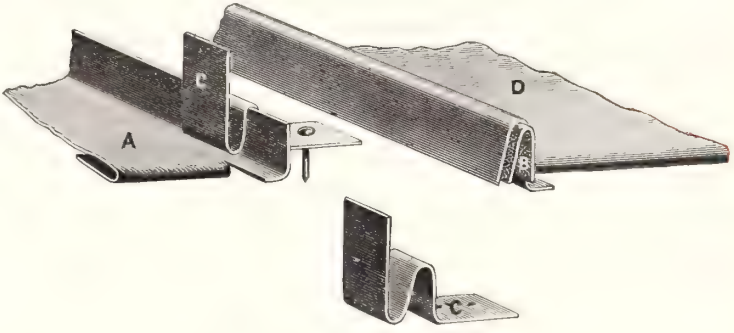


PATENT SELF-CAPPING AND PACKED

Standing Seam Iron Roofing.

SHEETS, as shipped, 96 inches by 24 inches; will cover 93 inches by 24 inches.

Fig. 31.



DETAILED DESCRIPTION.

WE PRESENT above an illustration of our patented improvement in Iron Roofing, as applied to Flat Sheets, with which it is largely used. For use with Corrugated Iron see page 11.

THE NOVELTY and merit of the invention consists in the application of a Water-proof Packing between the Standing Seam of the roofing sheets, thus effectually preventing their leaking.

LETTER A in the cut represents a sheet of Roofing Iron in the position in which it is first laid upon the sheathing; B, a strip of felt, bent lengthwise, and fitted into standing seam of D.

THE FIRST step in laying this roof is to secure sheet A to the sheathing, which is done by the application of an iron Cleat C, the first curve of which fits over A.

THE CLEAT is fastened to the sheathing by nails driven through it at the point of dots on the plane of C.

WHEN A and C are thus placed and secured, the upward extension of Cleat C remains in the same position as shown in cut.

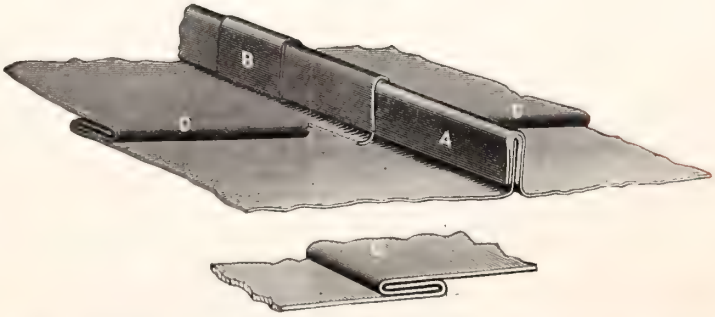
THE READY packed crimp of the next roofing sheet D, is then placed upon and forced downward over A, and first curve of Cleat C.

THE UPWARD extension of Cleat C is then turned downward over the crimp of D, which fastens this sheet to the sheathing.

IT WILL be observed that the crimp of D, thus forms an Iron Cap, covering the joints, and that the sheets are held to the sheathing *without being punctured with nails*, the whole being held to the sheathing by the Cleats, which may be placed as frequently along the joints as may be required, or, say, 12 to 20 inches apart.

IT WILL also be observed that the sheets require no binding or forming, except at the ends, which are locked in the usual way, as shown at A, Fig. 31, and at C, Fig. 32.

Fig. 32.



WE ALWAYS ship this Roofing with Packing *in place*, so there is nothing more to do with in using the Roofing than if it was not present.

WATER, FIRE AND WEATHER PROOF.

Acknowledged superior in plan of construction and quality of material to all other roofing of flat iron in use.

The only iron roof in the market that has thoroughly water-tight joints and Packed Standing Seams.

The Standing Seams, which form the Cap, are made from the sheet, and cannot loosen or blow off.

Each sheet may be fastened to the sheathing on all four sides, to prevent its blowing off or rattling.

The packing fills each joint and closes it effectually against moisture.

Its weight per square (10 x 10) is nearly eighty pounds (80 lbs) nearly double the weight of tin, one-third the weight of shingles, and one-sixth the weight of slate, making it a most desirable roof.

IT IS RUST PROOF,

costs less than tin or slate, and will outlast either of them.

The saving in Insurance will pay the difference in a very few years, between this and the cheapest roof that can be put on.

It is suitable for all kinds of roofing, and can be laid where any other roof can, and is effective at one inch fall to the foot.

IRON ROOFING AND SIDING

is no longer a new thing, as many suppose, but has been used in many places in Europe and the United States for more than fifty years, and would be almost universally used if it could have been used heretofore at as low a cost as now, and had as good material, and a perfect mode of construction been known and used, such as are embraced in our Patent Packed Standing Seam Iron Roofing and Corrugated Siding.

IT SAVES INSURANCE, FEARS AS TO FIRE AND REPAIRS.

Our method of forming the seams is acknowledged by all to be the best, the simplest and most flexible joint ever invented.

This is evidenced by the favor with which it is received by Architects, Builders and Mechanics, wherever it has been introduced.

There is no such thing as a leaky roof being blown off, when put on by our own method. *By the old method* of turning up one edge of a sheet wider than the adjoining edge, and then turn the widest edge over the narrow edge, there is always danger of cracking the iron; in fact a certainty of it if it is hammered up close enough to make a tight seam.

This cracked seam admits moisture, and will rust out in a few years.

By our method our seams have sufficient flexibility to compensate for all expansion or contraction of the metal.

NONE BUT THE VERY BEST REFINED IRON

is used in our roofing. This iron we have manufactured especially for our own use, and all imperfect sheets are thrown out.

The iron is painted on both sides, with two coats of

OUR METALLIC PAINT.

This paint has proved to be the best roofing paint in the world.

It has an established reputation of twenty-five years standing throughout the United States.

It is especially adapted as a protection to Iron, Tin or Wood.

Apply the third coat after the roof is put on, and it will last for years without deterioration.

ITS ADVANTAGES OVER SHINGLES.

Shingles were once made of the best selected timber, and lasted longer than now; they are now made mostly of limbs, odd cuttings and such inferior timber as cannot be used for anything else, and short lived at best, also frequently leak.

The average life of shingle roofs is twelve years, and in towns where coal is used, only ten years.

Shingles are old fashioned and have seen their best days.

NINE-TENTHS OF FIRES OCCUR ON THE ROOF.

People are now guarding against fire more than ever before, to prevent loss and increase happiness.

Insurance is about one-third less in case of an iron roof.

ITS ADVANTAGES OVER SLATE.

Slate roofing is very costly, all things being considered. Slate-roofing will crack by freezing and thawing, and from heat of adjacent fires will crumble and slide off.

Six or seven times as heavy as iron, it requires a strong and expensive structure to bear it up, and an extreme pitch, which makes a large amount of surface.

Slate often causes a building to settle out of shape, and the rule of measurement is always greater than for iron roofing.

Slate roofs are condemned at many places.

Many architects advise their clients not to use slate roofs.

ITS ADVANTAGES OVER TIN.

Some of our agents are tinners, and from them and our own experience we learn these facts; **the tin plate now used for roofing is made light, cheap and inferior,** to compete in price with iron, which is now gaining the lead; the iron plates are so thinly coated with tin or lead that many are uncovered, and at best it is difficult to hold the solder strongly.

Solder is a weaker material than tin, and breaks from contraction, expansion and other natural causes.

Iron both takes and holds paint far better than tin, and as the **paint is the protection to either iron or tin roofs,** the surface that is strongest, holds paint the best, and is the safest to use.

Tin roofs get out of repair so often that there are five times as many leaky tin roofs in proportion to one of iron.

Iron manufacturers who have large buildings and have used our roofing, universally approve it.

Our roof is unquestionably much stronger and far more durable.

Tin ought to be laid on tight sheathing, which costs about one dollar per square extra, while our roof can be applied on lath, the same as pine shingles, or over an old roof.

CISTERN WATER.

Those using the water from this roofing will be pleased to find how much cleaner the rain water is than from a dirty shingle or gravel roof.

The covering being smooth, the wind keeps it clean from all dirt, leaving none to wash into the cistern.

Our paint being from pure oxide of iron and linseed oil, is not injurious.

HOW LONG WILL IT LAST?

We have frequently been asked how long our roofing will last, and we answer that every person knows that as long as iron does not rust it will last, and if it is kept painted it will not rust.

There never is any wear on the under side to wear the paint off, and if the upper side is painted every two to four years, we do not see anything to prevent its lasting one hundred years.

Our roofing is made in our own factory, painted on both sides, and put up in packages generally containing eight squares each, with Cleats, Packing, Nails, and Dry Paint enough to give it one coat after the roof is laid.

GENERAL DIRECTIONS FOR LAYING.

Commence at the left-hand end of the Roof, at the bottom; take the sheet and straighten out the double Standing Seam or flange, and turn it over the Barge-board or up against the Parapet wall (as the case may be) and make Joint on upper end of Sheet, by turning lock with Jointer; then place the Cleats along the single Seam or flange, about two feet apart; then join on another Sheet the same way, turn locks at upper ends of Sheets up, those at lower end down—See A. Fig. 31 and C. Fig. 32.

"Break Joints" in laying, by using short, or half length sheets to start every other course, from Eaves to Ridge.

The Locks may all be formed before Sheets are sent up on the roof.

Each sheet is snipped, each end, $\frac{3}{4}$ inch in at each side ready for forming Locks.

When the Comb or Ridge is reached, allow one inch to turn up at the top, which is done by using the wide side of the Jointer, snip the Flange one inch, then turn it up and put Cleats about two feet apart.

This will finish the first course.

Then lay the next Sheet with double Flange or seam over the single Flange, with the packing in the ∩ crimp; press it down and turn the ends of the Cleat over, so as to hold it in place; then take the Tongs and press it together.

Avoid pressing Seams too close at tops—this is important.

This finishes the standing Seams; continue thus until this side of the roof is completed.

Be careful to keep Standing Seams straight in line—you will thus have handsomest and most effective work.

The other side is laid in the same way, and at the Ridge, when the Sheet is to be cut (if not quite long enough add a piece) leave one inch to turn up to form a Flange to meet the other side.

After this side is all laid, draw the two Flanges together with the Tongs, then take the scrap pieces left and cut strips two inches wide; put these in the Joiner, then make it an U shape; then fit it over the two Flanges on the Comb, and bend the end of the Cleat over to hold it, and press it together by using the Tongs.

A Hip is made in a similar manner and Valleys are formed by hammering out the double Flange and bending it over like U with the Jointer; then throw the single Flange over the same way, and lay this sheet in the Valley, cleating it each side; then put the packing in Flanges, and hook the roofing Sheet into it and force it down to close both Sheets making it water-proof.

We furnish Tools for laying the Roof, and Charge Actual cost for the same, as follows:

Tongs, per pair	$1 75
Jointer	50
Snips	1 50
Total	$3 75

and will allow the same as charged for them if returned in good condition, freight prepaid.

We recommend using a wooden mallet instead of hammer for closing cross seams, or locks.

After roof is all laid, mix the dry Paint, furnished, with boiled linseed oil, eight pounds to the gallon, and apply with a flat brush.

If any holes are in the roof—caused by laying, or mis-cuts, or flashing corners—work some of the Paint into a putty or cement form first, paint the broken places, and then work the cement in.

This will harden, and effectually stop all leaks.

DIRECTIONS

For Applying Our Metallic Paint on Old Metallic Roofs.

First clean off the roof, removing all scaly paint or other matter, so that the surface will be firm and clean. Look carefully for all holes, broken seams, etc.

If none, proceed to paint, rubbing the paint out well as you apply it. If any breaks in joints or seams, mark them with a scratch awl. Mark all holes made by rust or nails. Then coat each place with the paint.

Take good cotton unbleached muslin, tear in strips large enough to cover one inch each side of the break. Take a trowel and spread the cloth with our Cement Paint. Then lay it over the broken place, patting it down firm and smooth.

Put a small lump of the Cement Paint into all rust and nail holes, and paint lightly over it.

Treat leaks around chimneys, flashings, or in skylights, same as broken seams.

Then paint the whole surface.

Keep the paint well stirred, and rub it out well. No dryer is necessary.

If the paint is too thick, add one quart of boiled linseed oil to the gallon.

This can also be used for painting any kind of metal or wood which is exposed to the weather.

There is no better paint in the market.

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The Cincinnati Corrugating Company.

Corrugated and Standing Seam Crimped

SHEET IRON,

As covering for roofs and sides of Buildings of every kind, have conclusively shown their superiority, and are especially adapted, and the best article known for covering all kinds of manufacturing and other establishments, etc., such as

ROLLING MILLS,
NAIL MILLS,
R. R. BUILDINGS,
WAREHOUSES,
BLAST FURNACES,
FOUNDRIES,
GRAIN ELEVATORS,
FLOURING MILLS,
CAR SHOPS,
CAR ROOFS,
SNOW SHEDS,
COTTON GIN HOUSES,
COTTON WAREHOUSES,
MACHINE SHOPS,
BLACKSMITH SHOPS,
SMELTING WORKS,
BRIDGES,
BARNS,
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